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AIRCRAFT SYSTEM TEST PROCEDURES PREPARATION AND RELEASE

1.0 PURPOSE

To describe the requirements for preparation and release of Aircraft System Test Procedures for Dryden Flight Research Center (DFRC) aircraft and the Unmanned Aerial Vehicles (UAV) and Display Areas.

2.0 SCOPE

This DCP is applicable to System Procedures written for projects for which the DFRC has flight safety responsibility, except as noted in paragraph 3 below. For purposes of this document, the term "System Procedure" includes, but is not limited to, System Functional Tests (sometimes referred to as Hangar Checks), Servicing Procedures, Preflight and Postflight Checks, and Combined System Tests (CST) for aircraft systems, instrumentation systems, and UAVs and Display Areas.

3.0 EXCEPTIONS

Not covered by this DCP

- a. Informal, investigative or exploratory test procedures of a temporary nature not intended for system "buy off."
- b. Military Technical Orders or their equivalent.
- c. Acceptance, qualifications, or other "component" tests.

4.0 GENERAL INSTRUCTIONS

- 4.1 System Procedures generated by an outside agency/contractor and approved by the appropriate agency/contractor authority need not formal Dryden approval signatures, (excepting as may be required by contract) but are subject to the review of the operations engineer, the systems engineer, and the Quality Assurance Office. Unless an outside agency/contractor test procedure is listed as a requirement in an approved Dryden document, its use on Dryden aircraft must be authorized by an aircraft workbook item.
- 4.2 System Procedures generated in-house may be originated by systems engineers, operations engineers, instrumentation engineers, technicians, or any designated individual.

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- 4.3 A uniform format is not required, but System Procedures shall be titled and dated, or otherwise identified, to assure identification as to the latest revision. The format chosen must provide step by step sequential testing and acceptance criteria. Except for CST procedures, or those test procedures written to support a pre-existing documented "buy-off" requirement, a "buy-off" block for technician and inspection signature/stamp shall be provided for:
 - a. Each item

or

b. Each convenient block of items

and

- c. The end of the procedure (completed).
- 4.4 CST procedures shall provide a check off space for each line item, so that the test conductor or his designee may check off its completion as the test progresses.
- 4.5 Approval for System Procedures (original issue and all revisions) shall be in accordance with paragraph 5.0.
- 4.6 Following approval, the master and any copies from which "working" copies are issued to the aircraft crew for compliance shall be retained in a file or files, easily accessible to the using project, under the cognizance of the appropriate lead technician, systems engineer, instrumentation engineer, or operations engineer. In any case, the operations engineer shall maintain an updated index and file of all such procedures applicable to assigned projects.
- 4.7 At the discretion of the operations engineer, and depending largely on the magnitude of the project and volume of test procedures, an indexed central "library" may be set up at some convenient location and administered by the operations engineer.
- 4.8 Pen and ink changes may be made to System Procedures and signed off by systems engineer and/or operations engineer. It is implied that timely updating will take place, if the pen and ink change is to be a permanent one. CST procedure changes made in real-time need not be signed in real-time, but shall have the verbal concurrence of the key participants in the control room.

5.0 APPROVALS

- 5.1 Following are the minimum required signatures for approval of the various System Procedure Documents. Individual projects may impose additional approval requirements at their discretion.
- 5.2 System Functional Test, Servicing Procedures, and Preflight and Postflight Checks shall be approved by:

Operations Engineer
Systems Engineer*
Quality Inspection
Quality Assurance
Primary Technical Supervisor**

- * May be omitted if systems engineer and operations engineer are the same.
- ** Applicability of approval by Primary Technical Supervisor will be determined by the Operations Engineer based upon hazard level.

 (May require more than one additional signature.)
- 5.3 Combined Systems Tests shall be approved by:

Project Manager or his designee Operations Engineer

5.4 Day of Flight Checks shall be approved by:

Operations Engineer

6.0 RETENTION OF WORKING COPIES OF TEST PROCEDURES

Working copies of test procedures covered by this DCP, once they are completed, shall be retained by the appropriate engineer or technician, until the next flight is safely completed, after which they may be destroyed, unless otherwise requested by the operations or system engineer to be retained.

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DOCUMENT HISTORY PAGE

This page is for informational purposes and does not need to be retained with the document.

<u>DATE</u>	<u>ISSUE</u>	<u>PAGE</u>	AMENDMENT DETAILS
2/18/99	Baseline		
4/14/99	Rev A	1 & 2 3	Major modifications made to the document Change title to Aircraft System Test Procedures Preparation & Release Change "Remotely Controlled Vehicles" to "Unmanned Aerial Vehicles (UAV)" in 1.0 PURPOSE and 2.0 SCOPE
		4	Add to 4.6 line 5 after index: "and file" Delete "but in doing so" in 4.8
See IDMS Document	Rev B	2	Add to block 1 of Using Engineers/Technicians: (Paragraph 6.0)
Master List		5	Add Paragraph 6.0